

The Ballarat Naturalist

March 2016



Why ants ?

Presentation by Peter Muller

A member of Ballarat Field Naturalists, Peter Muller, before retirement has had a long career in environment and land management, and now has some time to study ants. When Peter tells people of his interest in ants, too often the response is, “Why ants?”. Why indeed!

Peter explained why this interest: ants are populous and important and often overlooked as part of the environment, as they are an important component of remnant vegetation and small reserves. For an area, by taking note of which ants are present, we will be better able to assess environmental health. Peter’s current project is to establish if ant mounds in the field can be reliably used to identify the ant group or species. In order to do this good identification skills and observation in the field are necessary.



Photo: Bull ant *Myrmecia nigriceps*

The known, world ant-fauna consists of 300 genera and 15,000 described species so far. Australia's current ant fauna has 103 genera and 1,275 described species (Shattuck 1999). Australia has a so-called, primitive ant group, Bull Ants, *Myrmecia*, endemic to Australia whose social colony structure alludes to an archaic ant behavior.

Ants are closely related to wasps and probably had a common ancestor but ants have elbowed antenna differentiating them from wasps.

Generally all ants have similar body plan: mandibles, head, trunk, petiole and gaster, but these parts vary in detail which allows for identification.

Bull Ant *Myrmecia nigriceps*

This Bull Ant can be found in all habitats of the world except the arctic regions. Australia has a wide variety of this species with some restricted to certain habitats and activity during particular times of the day. They have a wide variety of entry/exit hole-profiles in the ground that alerts us to their presence.



We were shown slides of a variety of common ant-hole profiles, and information on inhabiting species. (See three photos.)

Photo: Turret entrance
Camponotus molossus

Peter hopes to be able to correlate the different hole-profile characteristics with different types or species of ants. If successful, we maybe able to provide naturalists with a new tool to identify the presence of common ant species, and therefore add value to our environmental knowledge and to a greater knowledge of important natural small reserves and remnant vegetation in urban areas.

Ant colonization of all available habitats is reflected in the variety in their diets. Often many species of ant occupy the same habitat on the same area of ground. Their survival and success is the result of the ants having differing times of activity or different food targets, or both, thus enabling all ant species to co-exist in the one area. A group of slides illustrated some major food targets - seeds, insects,

nectar, honey dew and lerps from other insects.

Photo right: ant
hole profile *Rhyti-*
doponera metallica



Photo left: ant
hole profile *Myr-*
mecia nigriceps

The presentation concluded with some curious facts about ant biology. The “Jack Jumper” bull ant exhibits complex social behavior but astonishingly the male has the low one pair of chromosomes. Another amazing fact is that meat ants in the Northern Territory are striking a blow in cane-toad control by attacking and killing young toadlets as they emerge from water after transforming from tadpoles. Maybe there is hope yet to control the Cane Toads!

Peter Muller

**SEANNA Autumn Camp
Bellarine Peninsula April 8-11**

First mail out with registration forms and program, including
3 boat trips, has been published.

Ant excursion – Sunday 7th February 2016

Having increased our knowledge of ants at the February meeting and perhaps gained a little more empathy for them it was off to the Dereel Hall to meet Peter Muller. Peter's extensive knowledge of where to find different species of ants and their habitats enabled us to be led to locations in the Dereel area as well as back in Ballarat.

By the time we gathered at the Dereel Hall there were 17 members present. Cars were left at the hall and we were led on our initial foray seeking ants. Peter's advice when looking for ants was to look for clues and also to look up, as often there were trails up trees. It wasn't long before we were looking up a tree trunk and being told the ants were *Camponotus gasseri* which is the genus with the greatest number of species. Striking out through the grass to a site close to the dry Dereel lagoon, a nest of Jack Jumper ants

was located. The sites of these nests are likely to be found on a northern-aspect slope. The Dereel lagoon is a bit like a perched lake which is on tertiary sand.



Photo: Spider in plastic tube for easy viewing

The second stop was on Snowgum Road. A species here was *Aphaenogaster longiceps*, a little brown ant which Peter caught in plastic tubes so we could all have a good inspection. I was pleased to have the camera to photograph the page on which Peter had the name written. Over the road there were some interesting turret structures which are apparently used as launch pads for nuptial flights. (See photo p.2.) Here we were able to poke down the holes with grass stems encouraging the inhabitants to show themselves. But the ants, after a short sojourn to see what the irritant was, were soon back below. This species was *Camponotus molossus*.

Next it was off to the Enfield water tower. This area on the top of the range was heavily worked with remnants of dredging and a slum dam from the 1860s and 1930s. The forest is old regeneration with the last wood cut in the 1960s. Here we were looking for

Pyriformis bull ant species but they are nocturnal and were not easily enticed out. However at one nest they emerged and one was even seen climbing my camera strap as I attempted a photo.

Photo: Spider near entrance/
exit hole



The other ant found was an *Iridomyrmex* commonly known as a meat ant. These have gravelly mounds. Once again Peter's captive ants in tubes were an excellent way to inspect the bull ants we generally avoid. Indra, a young member, also had an excellent magnifying container.

Lunch was taken here and on the track was a muddy area still with some water. In quick succession White throated Tree creepers, Scarlet Robins, Eastern Spinebills, Fairy Wrens and Grey Fantails were observed.

Back in Ballarat a planned stop in Victoria Park was bypassed as the day was warming up but a stop was made at the Portsea Street plantation where bull ants and Jack Jumpers could again be observed.

The final stop was at Sparrow Ground where there were a few species. An interesting observation here was two Jack Jumper ants co-operating in carrying a pupa case over what seemed a considerable distance.

Peter certainly brought to life the information he gave in his talk to the general meeting and even made many of us more appreciative of these creatures. Thank you Peter for sharing your considerable knowledge both of ants and where they may be observed.

Peter Dalman

FNCB subscriptions are due after March AGM meeting

Fees to be discussed at meeting

Excerpts from Club Meeting Minutes Feb 5, 2016

Opening and Apologies

Attendance: President Peter Dalman welcomed 25 members. (Welcome to new members: Linda O'Hara, and Marie Keatley and her family.) **Apologies:** C Hall, J Metcalf, P Noble, E Swan, K Hammond, A Baulch, D Brooke, K Elder and E & D Thurgood.

Business Arising from Previous Meeting:

John G. was successful at pledging the agreed \$200 from FNCR to the Friends of Brisbane Ranges "Pozible" campaign, and the campaign raised the targeted \$10,000 which will be matched by DELWP to provide nest boxes for Tuans. Andy Arnold suggested that we invite Colin Cook, President of Friends of Brisbane Ranges to tell us about the progress of the project later in the year.

The Labour Govt introduced a bill into the Vic. Parliament to establish new Canadian Regional Park on Dec. 8, 2015. John G and John P attended. The Bill has been passed by the Upper House.

A letter of support was submitted to Ballarat City Council on the Club's behalf re the renaming of Winter Swamp to Mullawallah Wetlands.

John G and Emily drafted a letter to P Fernando at DELWP re. request to poison Cork Oak plantation near dam at Mt Beckworth.

Correspondence: IN

From Environment Victoria (EV): summary of achievements in 2015 and goals/ challenges for 2016; encouragement to switch your home loan from the big four banks to Bank Australia who doesn't fund coal mining or coal seam gas extraction.

From Jade Craven, Geelong FNC: request for information on significant plant species to look out for in regenerating bush after her parent's bush block was affected by the wildfire in Elaine in Dec. 2015.

From Rod Lowther, Geelong FNC: that they will promote our Club's field trip to Clarksdale Bird Sanctuary and invitation to their members to join us.

Reports: Treasurer's Report: Opening bal. \$15,123.65 Inc \$2,215.42 Exp \$8,376.95 Closing bal: \$8,962.12

La Gerche Trail signage improvement project: For project: just awaiting the last invoice to complete the Final Acquittal. Kyra from Parks Vic is going to set a date for the official opening soon.

Exceptional Tree Register: Paul N. reported that around 500 trees have been nominated, and Council staff have been getting in touch with property owners. They have also been working with various departments and other agencies to find a way to mitigate the rule that allows a property owner to remove ANY tree within 10m of a dwelling, regardless of its historic/ cultural/ botanical/ aesthetic/ ecological significance. At the first meeting 13 applications were assessed.

General Business

We agreed to defer any decisions about foldout brochure until Elspeth is present with essential knowledge of the website's workings.

Re ideas for October's field trip, Paul N. suggested that it could be to the Friends of Brisbane Ranges Wildflower Show if held this year.

The Field Nat's Club of Victoria's Juniors Group is coming up to camp at Clarksdale Bird Sanctuary over the Easter weekend. Claire Ferguson, joint organiser of the group has contacted us to see if anyone from the Club can recommend any areas for field trips, or could lead a field trip over the weekend at Clarksdale or somewhere nearby. Members to consider this, and let John G. know of ideas or if you can offer some time.

Show and Tell/ Field Reports

John G. told us of some remarkable sightings on a recent visit to Lake Burrumbeet: 2 Brolga, 30 Yellow-billed Spoonbill, 1000 Banded Stilt, 1500 Red-necked Avocet, 1800 Pelican and thousands of dead carp plus quite a lot of live ones being fished out by family groups with nets.

Paul N. recorded a Bassian Thrush in his backyard at Mt Egerton for the first time. He also watched an Echidna trying to drill into rock hard ground in search of ants before first drinking from a ground level bird-bath and then hopping in for a bath. The Copperhead Snake has returned to his veggie garden and compost heap and he recorded 41mm of rain in Jan against 147mm of evaporation. No wonder the Echidna was having trouble.

Marie K. saw a pair of Collared Sparrow Hawks with two offspring at Mt Pleasant. John M. reported a Purple Swamphen with two chicks at Lake Wendouree. Bill E. had travelled to Tasmania and seen Short-tailed Shearwaters and Australian Native Hens. John Mildren noted the Freckled Ducks still settled in at Convent Corner, Lake Wendouree. Wayne added a Satin Flycatcher to the Lake Burrumbeet bird list.

CALENDAR 2016

March

- Fri 4 AGM -Members' Images : *Fruits and seeds*
- Sun 6 *Hepburn Shire Water Reserves* - John Gregurke , Club member
- Tues 22 Committee meeting at Peter & Claire's

April

- Fri 1 *Weather for field naturalists :*
Dr. Ian Bell, meteorologist
- Sat 2 Excursion: *Mt Rothwell night fauna survey* - Staff at Mt Rothwell

Committee

President	Peter Dalman	
Vice –Pres	Fran Hanrahan	
Secretary	Emily Noble	
Treasurer	Les Hanrahan	
Claire Dalman		Val Hocking
John Gregurke		John Mildren
Wayne McGuire		

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Meetings are held at the Primary Industries Training Centre, cnr of Gillies and Gregory Sts, on the first Friday of the month at 7.30pm..

Excursions: Leave from the carpark at the Primary Industries Training Centre, cnr Gillies and Gregory Sts. at 9.30 am, unless otherwise advised.

A monthly publication of the Field Naturalists' Club of Ballarat Inc.

Incorporation # A0014919P ABN 13 150 403 135